Inception Report

Preparation of District Disaster Management Plan (DDMP) of Munger, Bihar

8/25/2015 Knowledge Links Knowledge Links

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Introduction

This inception report presents the context, approach and plan for preparation of district disaster management plans (DDMP) of Munger in Bihar. This report has benefitted immensely from the presentations made and the deliberations held during the inception workshop organized for preparation of multi-hazard district disaster management plans (DDMPs) in Bihar, by BSDMA on 30th July 2015 at Patna.

In conformity with the spirit of the National Disaster Management Act 2005, Government of Bihar has taken a broad view of disasters to include deaths due to negligence and accidents as well, besides well-known so-called natural disasters such as floods, drought, earthquake, cyclones and landslides. Lightning (known locally as *thankaor vajrapat*) is another disaster that kills people in many districts including Mungeralmost every year.

While the DM Act specifies that damage and loss including deaths due to negligence and accidents can be included as disasters in cases where they are beyond the coping capacity of the community involved, Government of Bihar has been liberal in providing disaster relief compensation even to the families of people, who have died in stray boat and road accidents across the districts visited.

Most districts have standard operating procedures (SOPs) in place for dealing with floods and earthquakes including mock drills and school awareness programmesbeing organized every year. The districts also have action plans to deal with these disasters. Hence, something like a district disaster management plan is not an entirely new concept and practice at the district level. However, these district plans have not been based on an informed understanding of the exact nature and level of disaster risk in the respective districts from a multi-hazard perspective, as there has been no real assessment of this nature in any of the districts, other than Madhubani, in the state. This was underlined as the primary reason for this initiative by BSDMA to provide specialized technical assistance to all the districts in Bihar for preparing actionable multi-hazard district disaster management plans (DDMPs).

The broader state, national and international context for this initiative is as follows:

Context: National and International Level

India has been traditionally vulnerable to natural disasters on account of its unique geoclimaticconditions. Floods, droughts, cyclones, earthquakes, landslides, fire incidents, heat and cold waves have been recurrent phenomena. About 60% of the landmass is prone to earthquakes of various intensities; over 40 million hectares is prone to floods; about 8% of the total area is prone to cyclones and 68% of the area is susceptible todrought. In the decade 1990-2000, which was declared as International Decade for Natural Disaster Reduction (IDNDR), an average of about 4,344 people lost their lives and about 30 million people were affected by disasters every year. The loss in terms of private, community and public assets has been astronomical.

Disasters claimed the lives of more than 2.2 million people globally between 1975 and 2008 and cost to the global economy was US\$ 1,527.6 billion in the same period (ISDR 2009). Storms, floods, droughts,heat waves and other weather-related phenomena are responsible for two-thirds of the fatalities and economic losses from disasters. Climate change is expected to further increase this disaster riskacross the world. India, with its heavy dependence on the monsoons, is one of the countries on the frontline of the climate and disaster challenge.

Over the past few years, with an aim to address mounting losses due to disasters, the Governmentof India has brought about a shift in its approach to disaster management. The report of the HighPowered Committee (HPC) on Disaster Management, the National Disaster Management Act and the National Policy onDisaster Management are some landmark initiatives that have driven this approach; and the agendahas been integrated into implementable instruments including the National Five Year Plans and the Finance Commission Reports.

The new approach stems from the conviction that development cannot be sustainable unless disaster mitigation is built into the development process. Another cornerstone of the approach is that mitigation has to be multi-disciplinary, spanning all sectors of development. The new policy also emanates from the belief that investments in mitigation and preparedness are much more cost effective than expenditure on relief and rehabilitation.

Progress has also been aligned with the international perspective and the evolution of disaster riskreduction (DRR) frameworks and initiatives with special reference to IDNDR, ISDR, YokohamaStrategy and the Hyogo Framework for Action (HFA). Critical inter-linkages across DRR and ClimateChange Adaptation (CCA) concerns and issues are being addressed at various levels.

The Sendai Framework for Disaster Risk Reduction 2015-2030, adopted at the ThirdUN World Conference in Sendai, Japan, on March 18, 2015, is the outcome of stakeholderconsultations and inter-governmental negotiations, supported by the United Nations Office for Disaster Risk Reduction at therequest of the UN General Assembly. The Sendai Framework is the successor instrument to the Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters. The HFA was conceived to give further impetus to the global work under the International Framework for Action for the International Decade for Natural Disaster Reduction, and the Yokohama Strategy for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation and its Plan of Action, adopted in 1994 and the International Strategy for Disaster Reduction of 1999.

The Sendai Framework is built on elements which ensure continuity with the work doneby States and other stakeholders under the HFA and introduces a number of innovations. The most significant shifts arestrong emphasis on disaster risk managementas opposed to disaster management, the definition of seven global targets, reduction of disaster risk as an expected outcome, a goal focused on preventing new risk, reducingexisting risk and strengthening resilience, as well as a set of guiding principles, including primary responsibility of states to prevent and reduce disaster risk, all-of-society and all-of-State institutions engagement. In addition, the scope of disaster risk reduction has been broadened significantly to focus on both natural and man-made hazards and related environmental, technological and biological hazards and risks. Health resilience is strongly promoted throughout.

The Sendai Framework also articulates theneed for improved understanding of disaster risk in all its dimensions of exposure, vulnerability and hazard characteristics; thestrengthening of disaster risk governance, including national platforms; accountability for disaster risk management; preparedness to "Build Back Better"; recognition of stakeholders and their roles; mobilization of risk-sensitive investment to avoid the creation of new risk; resilience of health infrastructure, cultural heritage and work-places; strengthening of international cooperation and global partnership, and risk-informed donor policies and programs, including financial support and loans from international financial institutions.

There is also clear recognition of the Global Platform for Disaster Risk Reduction and theregional platforms for disaster risk reduction as mechanisms for coherence across agendas, monitoring and periodic reviews in support of UN Governance bodies. The DRR measures taken include efforts to mainstream DRR into development planning throughpolicy frameworks, as well as specific sectoral initiatives towards DRR with key flagship programmessuch as MGNREGS, JNNURM, SSA, NRHM, IAY etc.

State Level-Bihar

Bihar is one of the most disaster-prone states in India. Due to its geographical and topographical location, it is prone to floods, droughts, fires, cyclones (high wind velocity), earthquakes, heat and cold waves, epidemics, road accidents and stampedes. According to seismic zoning, some parts of the state are in Zone-IV and Zone-V, which can cause devastation as faced in the Bihar-Nepal earthquake of 1934. More than 14 districts of the state are multihazard prone and are vulnerable to natural hazards such as cyclones, floods, droughts, earthquake, cold wave, heat wave etc. The combination of poor socio- economic conditions, lack of awareness and inadequate preparedness at community level for disaster risk reduction as well as the impact from frequent disaster events have led to recurrent economic losses, thereby slowing down progress on human development.

Bihar is India's most flood-prone State, with 76 percent of the population in north Bihar living under the recurring threat of flood devastation. About 68,800 sq km out of total geographical area of 94,160 sqkm (comprising 73.06 %) is flood affected. Kosi floods of 2008 are a grim reminder of the state's vulnerability to floods.

Urban risk is also of significant concern. In urban areas, there are problems like water logging, sanitation, health, and hygiene. In popular people's perception, these are reportedly considered as greater concerns than those of once in a while disasters. Streets and lanes are too narrow to even walk around, and pose a grave threat in times of disasters. Lack of adequate infrastructure creates problems in normal situations and becomes critical during disasters.

Women participation in disaster management at present is less than adequate. With poverty and social impediments, they are further marginalized. With large scale migration of men-folk to big cities in search of livelihood or seasonal movement to Punjab, Haryana and other agriculturally better placed states for working as landless labour, the pressure of managing homes is normally on women which becomes even more critical during disasters.

Bihar has taken several measures during the last two decades to reduce the impact of disasters. It was the second state, after Gujarat, to enact its own State Disaster Management Act. The State has now adopted the National Disaster management Act, after it was enacted in 2005. In Bihar, there is a well-established formal institutional system in place for disaster management across different levels. A cabinet rank Minister for Disaster Management, supported by the Disaster Management Department oversees all disaster management related functions at the state and sub-state level. The DM Department interacts with all concerned nodal entities, and institutionalizes all the required functions pertaining to disaster management. The department is managed by a Principal Secretary, an Additional Secretary, qualified and trained OSDs (Officers on Special Duty), and junior officers.

Under the DM Act, the Bihar State Disaster Management Authority (BSDMA) has been institutionalized and functioning on various issues including the management planning and review, public awareness and sensitization amongst all the stakeholders, and coordination with all concerned departments on disaster management related issues. There is a dedicated state level training institute BIPARD (Bihar Institute of Public Administration and Rural Development), which runs programmes on various aspects of the disaster management through its Centre for Disaster Management (CDM). However, the number of training staff/ faculty members is not sufficient, in relation to the requirement.

At present the center is unable to meet the expected level of performance to meet capacity building targets being set by the DM Department and BSDMA. BIPARD itself needs more institutional support and technical and financial capacity, for being able to put in place an

effective state level training and capacity building mechanism. Overall, there is a significant need for better linkage between the DM Department, BSDMA and BIPARD DM Cell, to ensure that all the three organizations work in a more cohesive manner, for an efficient and robust disaster management system that includes capacity building.

At District level, there is no secretariat as such to exclusively run the disaster management functions, as a whole. The districts covered under GoI-UNDP DRM Programme have done reasonably well in terms of disaster management institutionalization, including the preparation of DDMPs (District Disaster Management Plans), their updating, and functioning of disaster management committees at district level. There is an officer in charge of disaster management whohas the mandate to maintain and update DDMPs and to establish an Emergency Operations Centre at the district level when the need arises. The official, however, is holding this as one of multiple charges and is thus unable to give dedicated attention to disaster preparedness and risk reduction efforts in normal time.

At the sub district level, only very few selected people are part of disaster management initiative, which is an area of concern, as the community is not properly involved, informed or consulted while carrying out the disaster management planning. At the gram panchayat and village level there is no effective structure or DM Committees to address this issue. In the name of task force, only few volunteers are listed, and even they are also not adequately trained to handle emergency situations.

Some local institutions exist that can potentially play a significant role in disaster management and capacity building. KisanSamitis have a strong constituency among the farmers and provide financial loan and other support systems. In 2004, agriculture insurance was also introduced. The issue of drought is addressed through irrigation and water harvesting initiatives including ponds, check dams and drip irrigation, although it is not being adopted by community on a large scale.

MNREGA is another institutional structure that is directly and indirectly contributing to risk reduction, and can play a role in capacity building for disaster management. Various physical development activities are being taken up under the programmes linked to this Act, and a number of them can contribute to capacity building. Similarly, another local institution is the DoodhUtpadanSamiti that enables systems under which milk can be collected in one area and traded as a consolidated commodity. It may be necessary to mainstream disaster risk reduction in the programmes being currently implemented.

The Panchayats play a crucial role as the primary governance mechanism in the rural context. It has a role in receiving and relaying information on risk reduction as well as emergency response actions. PRI training programmes include a component of disaster management, and are one of

the most evident areas of work in this sector in the state. Schools and primary health centres potentially have a role to play in local capacity building, but there is little evidence of this happening effectively on the ground.

DRR has not been mainstreamed to the extent desirable across the relevant sectors. People from various fields and different departments are supportive of the cause, but there are no established mechanisms for cross linkages across sectors, and there is no organised training and capacity building initiative. Currently they are working in their limited capacities in a confined manner, whereas the need of the hour is a synergic approach towards establishing systems with cross cutting disaster management approaches.

Taking the examples of few national flagship programmes such as MGNREGA, NRHM, SSA, IAY, JNNURM, and NFSM; all these programmes have contributed to DRR through their components. However, there is need to look into micro aspects of these components. Bihar government has recently launched an initiative called JEEVIKA, under the Bihar Rural Livelihood Project. This initiative is also addressing the DRR component. Similar initiatives across different sectors are required to build a safety net and to involve the community at the grass root level, with special attention to DRR.

Regarding infrastructure development, accessibility and connectivity, particularly road access, has made significant improvements in recent years. These are good indicators of the development, which are in a way also partially linked to disaster risk reduction.

In the rural areas fire is a serious problem, particularly during April to June, and there is a need for imparting training regarding precautions required to be taken against it and response to its incidents. During fire, villagers come together to respond but they have not received any training for the same and thus the actions are ad-hoc and not well organised. Essential resources should be available in the village itself to avoid losses. Models should be made of fire resistant construction, and the skills should be disseminated.

Developmental risks such as poor quality and supply of drinking water are also reported as a significant problem that will only aggravate an emergency situation when a disaster strikes. There are significant instances of water borne diseases even without any disaster striking. Solid Waste Management is an acute problem particularly in the urban areas.

There are social concerns such as alcoholism and violence which primarily affect women and children. It needs to be taken into account that such concerns become significant hindrances during emergency situations when stress levels are high, assets have been lost, and social

exposure of high-risk groups such as women and children is very critical while living in relief camps or in displaced situations.

Vulnerability Profile of Munger

Mungeris the headquarters of MungerCommissionerate comprising four districts other than Munger including Lakhisarai, Sheikhpura, Jamui and Khagadia. Being neighboring districts, there are some common vulnerabilities. Still, some vulnerabilities, which are specific to the districts concerned. A general profile of Munger along with its vulnerability profile is as follows.

Munger district is located in the south east part of the state, about 160 kilometers from Patna. It is surrounded by Khagadia district in north, Banka and Jamui in south, Bhagalpur in east and Lakhisarai in West. Munger has nine blocks and three urban areas. The total number of villages in the district is 914, of which 560 are electrified and the remaining 354 villages still do not have the facility of electricity.

Munger district has a population of 13.59 lakh. It has the worst sex ratio in the State with 879 females to 1000 males. The literacy rate is 73.30%. The district falls in seismic zone IV (High Risk Zone). Though the last major earthquake took place on 15th January 1934, the district remains highly vulnerable to earthquakes.

As for floods, 28 of the 38 districts in the state are considered to be highly or moderately vulnerable. Munger does not fall in these 28 districts. However, during the 2013 floods, 4 out of the 9 blocks of Munger were affected by floods. In this background, a flood control directory was prepared by the district administration and has been recently updated during the current year 2015.

In addition, Munger is prone to fire incidents, as also to lightening, particularly in Kharagpur and Sangrampur blocks. Even during the last three months, 9 children have lost their lives due to lightening, known locally as *thanka*. Moreover, the entire district is vulnerable to high speed winds/gale/hail storms, falling in high damage risk zone.

The district administration has taken proactive measures by putting in place a flood control directory. A capital intensive seismograph (costing about 1.25 crore INR) has been sanctioned by the state government for the district and is proposed to be installed soon. The NGOs, which are active in the district, include Red Cross and Nehru Yuva Kendra (NYK). Red Cross is particularly very vibrant and gets actively involved in disaster relief, response and awareness

generation activities in the district. Besides, Bihar School of Yoga provides volunteers to assist the district administration in case of any disaster. There is a strong felt need to accord official recognition to the civil society volunteers as valid disaster managers duly recognized by the local administration.

Although disaster management has not been included in the school curricula so far, teachers and students in schools are being trained in safety measures including precautionary measures to be taken during earthquake by four master trainers trained for the purpose. However, the issue of the structural safety of the schools has yet to be addressed. Awareness about floods and their timely management is being generated among school children through essay writing competition, speeches by children etc.

There has yet to be a civil defense establishment in the district, whereas a decision to set up civil defense institutions as part of the disaster management efforts has already been taken at the national level.

The district administration brought out that the state is taking a broader view of disasters by including the families of victims of some non-natural events for gratuitous relief (GR) ascompensation. In recent months, relief has been provided to the families of victims, who have lost their lives due to lightening and a mobile aattachakki blast killing 5 people and injuring a few others.

(Source: Disaster Management Department, Government of Bihar, Vulnerability Atlas of India, Vulnerability Maps contained in Bihar State Disaster Management Plan and district level interviews and interactions)

Approach

The perspective for undertaking development of District Disaster Management Plan (DDMP) including capacity assessment and strategy development will be one of inclusive, equitable, safe and sustainable development. It will also include aspects of climate change impacts and uncertainties. As the poor invariably face thegreatest disaster vulnerability, due to their physical, economic, social and political disadvantages, thecapacity building strategy will have a special focus on enhancing their resilience to disasters including climate-related ones.

Organisational development (OD) initiatives and other institutional capacity buildingmeasures would also form important components of the capacity building strategy of DDMPs. The broad approach would be one of participatory research, action learning and collaborative strategy development. This would entail stakeholder consultations; participatory needs assessments; and the development of innovative tools and techniques to address the identified needs.

Objective

The overall objective of the assignment is to develop a multi-hazard District Disaster Management Plan (DDMP) for Munger, along with three other districts. Making multi-hazard DDMPs would also mean that the DDMPs will be multi-sector and multi-level in their nature and design. This would practically imply having all the key line departments including revenue, police, agriculture, education, health, rural development, public works department, public distribution system, women and child development, and PRIs and their functionaries at the district and sub-district level as active participants in the preparation of multi-hazard DDMPs.

DDMP will consist of two sub-plans; a Disaster Risk Reduction (DRR) Plan and a Disaster Response (DR) Plan. The DRR plan will include systems to be put in place for dissemination of early warnings, awareness generation at district and sub-district level including community level, mitigation and preparedness measures to be taken, and capacity building. The DR Plan will include response and relief, rehabilitation and recovery. It will also cover EOCs, ESFs, Incident Response System, Response teams, coordination and monitoring mechanism, common actions to be taken as also disaster specific actions which need to be taken, and cross cutting issues including gender equity. Synergy and linkages will be maintained with relevant provisions of Disaster Management Act, 2005, particularly section 31 of the Act and State Disaster Management Plan for the state of Bihar. Efforts will be made to maintain synergy with the Madhubani District Disaster Management Plan as envisaged.

Methodology

The methodology will be broadly based on the methodology adopted for development of Madhubani District Plan, as already laid down by BSDMA. The areas of Study and Formative Research will inter alia cover:

- ✓ Literature Review: The literature review will be a key secondary data input, which will be synergized with the primary data collected from the field. The questionnaires will be based on inputs culled out from literature review.
- ✓ District level visits: The visits will help the team to map the DM and sectoral institutions, carry out interviews with the line departments and assess the infrastructure and training aids available with institutions. The information collected would feed into the gaps and needs analysis.
- ✓ Interaction with relevant District level departments including District Magistrates and Heads of line Departments, sub divisional officers, municipal bodies, other non-government stakeholders such as NGOs/ CSOs, District Associations, ULBs and Gram Panchayats (Gram Pradhansto be called at district headquarters comprising at least one belonging to SC/ST, one woman and one from general category) and, if possible, members of DDMA and Community (Females, Males, Youths, Children, Schedule Tribe, Schedule Caste etc) in each district through FGDs and discussions.
- ✓ Interaction with BSDMA

Effort will be made to address issues related to gender concerns, children and elderly and gaps will be identified at district level in awareness generation, dissemination of early warnings, training and capacity building, organisational and institutional structure, response, relief, rehabilitation and recovery to build back better, coordination mechanism, monitoring and evaluation and financial arrangements. Based on the gaps so identified, an Action Plan for each district will be proposed. Integration of DRR with the Developmental Programmes will be crucial.

Deliverables

The process of preparing the district disaster management plans (DDMPs) will be carried out in the following three distinct, but inter-related phases:

- ✓ Inception phase (1 month) will aim at mapping out the existing disaster risk of the district on the basis of available secondary literature and data, followed by initial round of consultations with the key district officials including the district magistrates and officer-in-charge disaster management. The Inception Report will be developed and delivered during this phase.
- ✓ Planning phase (4 months) will aim at generating the required primary and secondary data and preparing the draft DDMP using a participatory process involving all the key stakeholders at the district level. This will result in development of draft DDMP for each district. The DDMP so prepared will have maps drawn from authentic government sources as agreed during the inception workshop held on 30th July in Patna. Due attention will be paid to the issue of livestock safety during disasters, as they form the very basis of livelihoods of people in the region. (*This phase may be delayed by about three months due to monsoons and elections, which period will be utilized for in-depth literature review, data analysis and preparation of the outline of DDMPs to be prepared*).
- ✓ Finalisation phase (1 month) will aim at finalising the DDMP in consultation with all the stakeholders after eliciting and incorporating their feedback and comments on the draft DDMP prepared. The deliverable will be final DDMP for each of the four districts.

Assumptions and Risks

The proposal is based on certain assumptions and risks, which need to be brought out at this stage.

Assumptions

The key assumption is that BSDMA and the District Administrations will facilitate, to the extent possible, collection of primary and secondary datathrough their respective Nodal Officers to be designated at different levels, including traininginstitutions. The concerned district magistrates and the concerned officers-in-charge disaster management at the district level will be clearly briefed by BSDMA and the state government that the technical agencies will be providing specialized technical assistance for preparation of DDMPs including all the ground work on behalf of the concerned districts, but the actual process of DDMP preparation will be anchored, facilitated and owned by the concerned districts.

It is also assumed that the BSDMA and the District Administrations will facilitate, through their nodal officers, meetings for In-depth interviews withsenior officers, including nodal persons of district departments, state and district level training institutions, respective DM/ DC/ CEO of DDMAs etc.

Risks

Part of the district level survey may coincide with adverse conditions created by the weather, and the longperiods of festivities and elections in Bihar during August-October 2016, which may interfere with smooth preparation of DDMPs in a timely manner. Besides, lack of proper documentation or response from the stakeholders may hamper data collectionprocess. Also, since related activities are sequentially linked, any delay on part of the client inreviewing and approving the deliverables and releasing payments will lead to corresponding time and cost overrun on the project.

Survey Schedule Risks

The field visits for surveys will commence soon after the approval of the Inception Reportby BSDMA and will be undertaken over a period of 3-4 weeks. The constraints may be inclement weather, state elections, festivals etc. All concerned State Government Officers are not likely to be available during the main festivals or elections. The more time taken for completion of Field Visits will result in some slippage in completion of the Study.

Proposed Team

The proposed team for the assignment will have two sub-teams: one, core team comprising two team members; two, field team of another two members, at least one of whom would be locally identified and stationed. Both these sub-teams would function in close coordination with each other.

Core Team

The two members of the core team carry extensive experience of working on disaster risk reduction (DRR) and climate change adaptation (CCA) issues in India and other countries. The team members carry complementary experience, skills and expertise that will be of immense help in preparation of DDMPs as intended.

While Nisheeth Kumar has more than two decades of experience in participatory planning including district level planning and is a trained gender specialist, Mohan Sajnani has reviewed a number of state disaster management plans (SDMPs) and contributed to the design of templates for district disaster management plans (DDMPs) on behalf of NDMA.

Additional team members will be included to help the core team on the ground as required. The proposed team is well equipped to ensure the preparation of DDMPs across four districts in Bihar over a period of six months, subject to assumptions and risks mentioned above.

CV 01Nisheeth Kumar

Nisheeth Kumar from Knowledge Links carries around 25 years of work experience in the development sector with focus on strategic planning, capacity development and knowledge management issues across sectors with gender equity and inclusive, resilient and sustainable development as his core concerns. He carries the experience of providing high end technical assistance for strategic planning at the national and sub-national levels.

Most of his work involves engaging with policy makers and decision makers within governments and development aid agencies, as also with the concerned communities on the ground. In recent years, he has been involved in community led change initiatives in disaster risk reduction (DRR), climate change adaptation (CCA), water and sanitation and health and related policy advocacy.

He has been trained in gender policy and analysis at the Institute of Development Studies (IDS), Sussex. He is the founder member of the Alliance for Adaptation and Disaster Risk Reduction (AADRR), the largest civil society network in India with more than 200 NGOs working on DRR and CCA initiatives on the ground in India.

His recent work experience has been in India, Indonesia, Pakistan, Afghanistan, Sri Lanka, and USA. He coordinated the research in India for mapping gender issues in DRR in the South Asian region for a study carried out by Practical Action for UNISDR in 2010. As the training and capacity building specialist, he was recently (2012-14) involved in preparing a long term training and capacity building strategy for

disaster risk reduction (DRR) and climate change adaptation (CCA) in India. Earlier, he was a member of the team which had undertaken mid-term evaluation of the GOI-UNDP Disaster Risk Management Plan.

CV 02MohanSajnani

Mohan P. Sajnani carries an experience of more than 35 years in the government sector with more than 12 years in core disaster management areas. He played a major role in developing institutional and legal framework at national level for disaster management in India. During his tenure with the Government of India as Director, Disaster Management in the Ministry of Home Affairs, he was associated with conceptualization, formulation, drafting, and enactment of Disaster Management Act and National Policy on Disaster Management, detailed review of the recommendations made by HPC, development of Status Reports on Disaster Management in India in 2002 and 2004.

His work also involved development of disaster management strategies at micro levels and linking that with national priorities as well as aligning disaster management planning processes with ground realities involving multiple stakeholders. As the coordinator for the Disaster Risk Mitigation (DRM) programme of GOI and UNDP he was involved in the development and execution of programme implementation strategies.

He has also worked as consultant to various national and international organisations including World Bank, UNICEF, UNDP, Asian Disaster Preparedness Centre (ADPC). He has worked in more than 20 states in India during various projects. As a consultant to UNDP he has reviewed disaster management (DM) plans of 13 states on behalf of NDMA, including the initial State Disaster Management Plan of Bihar as well as analysed institutional mechanisms andtheir functionalities in different phases of DM cycle. He also assisted NDMA in the development of guidelines for preparation of SDMPs.

As a part of his recent work he was engaged as a Disaster Management Expert in preparing a countrywide long term strategy for capacity building for disaster risk reduction in India. He was also associated as a member with the team which had undertaken end-evaluation of the GOI-UNDP Disaster Risk Management Programme. He was also associated as Disaster management Expert with the detailed study of Municipal Corporation of Greater Mumbai (MCGM) on Legal and Institutional Arrangements from national, state to MCGM level in Maharashtra.

Field Team

The field team will comprise a team of two, one of whom will be located in one of the districts and coordinate with all the four districts for the purpose of collecting the secondary data and facilitating the process of DDMP preparation on the ground.

The field team will work under the overall supervision and guidance of the core team members. The field team members are in the process of being identified and engaged currently.

Annex 1: Structure of DDMPs

Within the general framework indicated above, the structure of the DDMPs will be broadly as shown in the Annex.

Broad Structure of the DDMPs

Effort will be made to inter alia cover the following components in each DDMP, maintaining synergy with the DDMP of Madhubani District and the provisions of the Disaster Management Act, 2005 and subject to its finalisation in consultation with BSDMA:

- Introduction
- District Profile
- Hazard Risk Vulnerability and Capacity Assessment
- Institutional Structure, Organisational setup and infrastructure for DM
- Mitigation and Preparedness Plan including dissemination of early warnings, awareness generation, techno-legal regime, capacity building, mainstreaming of DRR in development programmes and strategy for development, dissemination of IEC materials, cross cutting issues including gender concerns, coordination and monitoring mechanism and Action Plan etc.
- District Response Plan inter alia including response and relief, rehabilitation and recovery. It will also cover EOCs, ESFs, Incident Response System, Response teams, coordination and monitoring mechanism, common actions to be taken as also disaster specific actions which need to be taken, cross cutting issues including gender equity.
- Identification of Potential Mitigation Projects with vision plan for implementation
- Cross Cutting Issues
- Financial Arrangements
- Implementation Methodology of DDMP
- Monitoring of implementation of DDMP including role of district administration, respective line departments, conduct of need based mock drills at various levels, review and periodic updating of DDMP

The contents proposed above are illustrative and not exhaustive.

Annex 2: Information to be collected-District-wise

Demographic/ Economic

- Name of the district
- Population-total; male and female; ratio of women to men; urban and rural
- No. of blocks and villages, preferably block-wise; No. of gram panchayata
- No. of municipalities; slum population
- Literacy rate-total; male and female
- Main occupations-agriculture, industries, labourers, others
- Population of SCs/ STs; OBCs
- BPL population
- Per capita income-urban and rural

Vulnerability

- Natural disasters-earthquake, flood, heat and cold waves, drought, fire incidents, high wind velocity, epidemics
- Human induced-road and rail accidents, industrial accidents, hooch (liquor) tragedies, crowd management, others
- Details of past disasters during last 15 years (since 2001); nos. of deaths and injuries

District Administration Structure

- No. of departments
- Nodal department for disaster management
- Total strength of District Administration
- Modalities for interaction between DM Department and other departments for integrating DRR with the activities of other departments
- Institutional structure for imparting training to officers and employees
- Has DDMA been constituted and is functional? Minutes of DDMA meetings during last three years
- Is a DDMP in place? If so, a copy of the same. How frequently it is updated?

Major programmes being run with coverage

- IAY
- SSA
- NRHM
- JNNURM
- NREGS

- Urban health programmes
- Water, sanitation and hygiene (including toilet construction)
- No. of ODF villages, if any; programmes in hand for the purpose

Awareness generation

- Was the district covered under DRM Programme?
- Awareness programmes undertaken; how these programmes are being run?
- Methodology for awareness programmes- conducted by government/ NGOs at village level; publicity materials used or being distributed; through schools, NGOs or otherwise
- Mock drills

School safety programmes

- Structural safety
- Included in course materials
- Training of teachers
- Monitoring mechanism

Techno-Legal Regime

- When Building Bye Laws were last amended; Are these in line with NBC, 2005?
- System of inspection; grant of permission for approving designs and before giving completion certificate
- Awareness of risks to be taken into consideration while taking up construction

Training

- Is there a training plan at district level, if so the details thereof
- How many government officers/employees, persons from NGOs have been trained
- Is any training imparted at community level; if so the details thereof
- What type of training is imparted at different levels? Is it general or specific to their respective needs?
- Are there specific training modules for different stakeholders? If so, how these modules were developed?
- What is the institutional infrastructure available for imparting training?
- How many trainers are there at district level and what are their areas of specialization?
- Has any quantification exercise has been undertaken about the number of persons to be trained at district, block, municipality, and village level? If yes, the details thereof. If no, how the trainees are selected and the specific training modules are decided?

Mitigation and Preparedness

- What systems are in place for receipt and dissemination of early warnings?
- What precautionary measures are taken before flood season or on receipt of warning for high wind velocity instances?
- No. of fire brigades in the district. What is the drill for taking care of fire incidents, including forest fires?
- How DRR is being mainstreamed in development programmes and the functions of each department?
- What systems are in place to curb possible epidemics, particularly before the onset of monsoons?
- Is a copy of SDMP available at district level and if so, has the mitigation plan contained therein is being followed?
- Are mock drills held for specific disasters at different level such as district, block, village, municipality, hospital and school level?

Response and Relief

- Is there a response, relief and rehabilitation plan in place? If so, a copy thereof. If no, how response system is coordinated?
- Is District EOC functional? Which desks (or departments) are represented on it? How do they coordinate response and relief?
- Have you faced any problems in the past in relief distribution? Is there a check list or SOP in place?
- Is a copy of response plan contained in SDMP available at district level? Is it being followed?
- Is there a system of documentation in the event of disasters? If so, are changes in procedures made to take care of gaps. If yes, please give some instances.

General

- Would you like to express the problems being faced in any aspect of disaster management and what, in your view, remedial action can be taken to take care of such problems?
- Are you satisfied with GP Members/ community level training being imparted? What are the gaps in your view and how these can be rectified?